

55yrs. Patients treated between April 2008 - January 2013. A single incision approach was used and repaired with anchor sutures.

Results: Time to surgery, mean of 13.6 days, follow up mean 13.5 weeks, range 9 - 26 weeks. 2 patients lost to follow up at 9 weeks. Full range of movement in 15/17 patients. Pre-injury strength regained in 12/17 patients. 2 patients had reasonable power at 12 weeks. Slow improvement in 2 patients at week 12. 2 patients had complications, 1 had injury to lateral cutaneous nerve of the forearm, and 1 had a superficial blister proximal to the wound.

Conclusions: Single incision approach has a low complication rate and a high satisfaction outcome. It provides acceptable functional recovery of elbow and forearm mechanics and we believe it a safe repair for distal biceps tendon injuries.

0298: TOTAL HIP ARTHROPLASTY TO TREAT FRACTURE NECK OF FEMURS – ARE NICE GUIDELINES BEING IMPLEMENTED?

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Introduction: In 2011 NICE suggested that a specific subset of patients with a displaced intracapsular neck of femur fracture (#NOF) should be offered a total hip arthroplasty (THA); a significant paradigm shift from the traditional treatment of hemiarthroplasty (HA). This audit aims to ascertain whether the guidelines have changed local practice in a busy urban district general hospital.

Methods: A retrospective analysis was performed of the local #NOF registry data for all patients who were admitted to our institution with a #NOF in 2012.

Results: 230 patients were admitted. In total, 119 patients had intracapsular fractures, of which 108 were displaced fractures. 82 patients were treated with an arthroplasty; 79 HAs and 3 THAs. Of those patients treated with HA, 15 met the new NICE guidelines for THA but had a HA instead of a THA. There was no statistical difference in length of stay of patients undergoing THA or HA (median 10 vs 11, $p=0.164$; Mann-Whitney U).

Conclusions: NICE 'moved the goalposts' with the release of their guidelines and this study shows that institutions are struggling to find the new target. We feel that systemic changes have to occur in order to allow these guidelines to be effectively implemented.

0301: THE USE OF TRANEXAMIC ACID RESULTS IN DECREASED BLOOD LOSS IN PATIENTS UNDERGOING PRIMARY LOWER LIMB ARTHROPLASTY

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Introduction: To assess the effect of tranexamic acid (TXA) on blood loss, transfusion rate and length of stay following lower limb arthroplasty.

Methods: The study group included 81 patients who underwent lower limb arthroplasty with 1g of TXA given at induction of anaesthesia for total hip replacement (THR) and at deflation of the tourniquet for total knee replacement (TKR). Post-operative haemoglobin, length of stay and blood transfusion episodes were recorded. These figures were compared with a historical cohort of 88 patients.

Results: At 24 hours post operation the mean (\pm SD) drop in haemoglobin decreased from 3.5 ± 1.5 g/dL to 2.5 ± 0.9 g/dL following administration of TXA in THR $p<0.001$. There was a similar drop observed in TKR from 2.6 ± 1.0 g/dL to 2.0 ± 1.0 g/dL $p<0.01$. Median hospital stay decreased from 6 days to 4 days following TKR ($p<0.01$) and 6 to 5 days following THR however this was not statistically significant. Blood transfusion rates were not affected.

Conclusions: Tranexamic acid reduces total blood loss for patients undergoing lower limb arthroplasty and reduces length of stay following total knee replacement. In our series transfusion rates were not affected.

0315: A COMPARATIVE STUDY OF FOUR DIFFERENT TECHNIQUES FOR ARTHRODESIS OF FIRST METATARSOPHALANGEAL JOINT

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Introduction: First metatarsophalangeal arthrodesis often performed for several arthropathy entities such as end stage Hallux valgus, Hallux rigidus and Rheumatoid arthritis (1). We performed a retrospective review of first

MTPJ fusion using Bold and Acutrack compression screws, universal 1/3 tubular plate and Hallu-S non locking plate. Main objectives were to compare their fusion rates and evaluate functional outcomes.

Methods: Operations were carried out between September 2008 and December 2012. Total of 297 patients (348 feet) were included in the study. Mean age was 62.4 years. There were 259 female and 38 male. 101 had fusion of first MTPJ using two Acutrack screws and 89 with 2 bold screws. 65 fused with Hallu-S plate, and 42 used universal 1/3 tubular plate. Patients evaluated clinically and by X-rays at 6 weeks and 3 month. Functional outcome scores performed using Manchester-Oxford Foot Questionnaire (MOFQ).

Results: Failure rate of Acutrack screw was 2.4%, Bold screws 9.6% and Universal 1/3 tubular plate 12.5%. However, Hallu-S plate had no failure.

Conclusions: We conclude that ideal procedure for 1st MTPJ fusion is a low profile, precontoured plate with lag screw followed by 2 Acutrack compression screws. 1. Gimple K, Anspacher JC, Kopta JA. Metatarsophalangeal joint fusion of the great toe. *Orthopaedics* 1978;11:462-7

0329: ASSESSMENT OF THE POSTERIOR TIBIAL SLOPE IN TOTAL KNEE REPLACEMENTS: COMPUTER ASSISTED VERSUS MECHANICAL JIG TECHNIQUES

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Introduction: Assess reliability of measurement of the posterior tibial slope (PTS) on post-operative short lateral knee plain-radiographs. Compare accuracy of measurement of PTS following total knee replacements (TKR) using a mechanical jig (MJM) versus computer assisted (CAM, Stryker) methods.

Methods: Four surgeons of varied seniority were taught a method to measure PTS on plain-radiographs. The last 20 radiographs for each method of TKR were collected and reviewed for PTS and length of tibia; and repeated after 14 days. Inter-rater correlation, intra-rater correlation and variability were calculated and statistical analysis of both groups undertaken.

Results: Intra-rater correlation of measurement of PTS was 0.90(95% CI:0.83-0.93) and inter-rater correlation 0.93(95%CI:0.9-0.96), with mean variability between measurements of 0.69°. There was no correlation between seniority and intra-rater correlation, nor angle variance and tibial length. PTS with MJM was 4.0°(SD:0.84, 95%CI:2.4-5.6). 88% lay between 3-7°. With CAM, PTS: 2.0° (SD:0.73, 95%CI:0.5-3.4), 9% between 3-7°.

Conclusions: Inter and intra-rater correlation show strong correlation, therefore PTS can accurately and reproducibly be measured. CAM tends to under-estimate PTS. Anatomically, PTS lies between 3-7°, largely achieved using MJM. To achieve accurate posterior tibial slope in TKR, the mechanical jig technique is advised.

0346: NON-OPERATIVE MANAGEMENT OF PROXIMAL 5TH METATARSAL FRACTURES

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Introduction: Proximal 5th metatarsal fractures are common injuries, frequently managed non-operatively. A lack of consensus in the literature concerning treatment strategy superiority prompted evaluation of current practice at our institution to devise a treatment protocol.

Methods: Retrospective analysis of all non-operatively managed proximal 5th metatarsal fractures during the 8 month study period (March to November 2012). Patient demographics, fracture classification (Torg et al.), treatment intention, number of clinical encounters, follow-up duration, and complications were analysed.

Results: 90 patients (54F/36M) met inclusion criteria, mean age 42.1 (13-84), distributed as zone 1 (52%), zone 2 (34%), zone 3 (13%) fractures. Initial treatment included 66% below-knee cast, 29% metatarsal shoe, 3% hard-sole shoe, 3% walker-boot. 82% of patients were advised to weight-bear. Patients treated in a below-knee cast attended more clinical encounters (2.7 vs 2.1) over a longer period (74 vs 42 days) than other treatment groups. There were 15 complications across all groups of which 3 patients underwent surgical intervention

Conclusions: Significant heterogeneity of treatment strategies was observed despite which complications were infrequent. Fewer clinical encounters and shorter follow-up duration was observed with the